

**Methods:** According to Two-way Referral System, tertiary hospitals were responsible for the following work: First, tertiary hospitals received patients who needed PD from primary hospital, given them patient education, operation for insertion of PD catheters, training, and established health records. Second, to deal with complicated or severe complications of PD which primary hospital were difficult to solve. Then, primary health-care workers were trained on peritoneal dialysis standard operating procedures. Finally, carried out the education activity and patients party every three months. The primary hospitals are responsible for the following work: First, transferred new ESRD patients who were suitable for PD to the tertiary hospital. Second, managed the patients who had received peritoneal dialysis, guided them daily treatment. Inspect, recorded and summarized the clinical data regularly, made continuous quality improvement program together with tertiary hospitals. We evaluated therapeutic effects and the survey feedback information of patients and their family members.

**Results:** After the implementation of two-way referral our center added a total of 226 cases of PD patients from January 2012 to December 2014 (the number was 48 from January 2009 to December 2011 before the implementation). In December 2011 the number of survival of peritoneal dialysis was 50, in December 2014 the number was 187 (the data came from Chinese national renal data system). The survival time and quality of life improved. The patients had more convenient medical services and satisfaction, and cost reduction.

**Conclusion:** The application of Two-way Referral System in primary health care institutions to promote PD get a good social and economic benefits, and it is worth popularizing.

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## 0242

### Influences of Different Induction Hemodialysis Patterns on Dialysis Disequilibrium Syndrome in End-stage Renal Disease

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**Objective:** In this study, we investigated the influences of different induction hemodialysis pattern on Dialysis disequilibrium syndrome (DDS) in end-stage renal disease. Moreover, the present study aimed at discussing the feasibility and advantages of daily hemodialysis (DHD) by comparing the application of DHD and conventional hemodialysis (CHD) in induction period.

**Methods:** We analyzed 44 patients from beginning of accepting hemodialysis for chronic renal failure from 2013 to 2014. In these patients, 22 cases were treated with daily hemodialysis (DHD group) and others received conventional hemodialysis (CHD group). The incidence of DDS was recorded. Headache score, nausea score, somniphathy score, dysphoria score, somzatzation score and total score (SCL-90) were also recorded.

**Results:** The incidence of DDS was different between the two groups. Headache score, nausea score, somniphathy score, dysphoria score, somzatzation score and total score also were statistically diverse between the two groups ( $P < 0.05$ ).

**Conclusion:** DHD, instead of CHD could reduce the occurrence of DDS in induction period.

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## 0243

### Sleep Quality, Anxiety and Quality of Life in Stable Hemodialysis Patients

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**Objective:** To assess the relationships between sleep quality, anxiety and quality of life of stable haemodialysis (HD) patients in East of China.

**Methods:** This was a cross-sectional study. A total of 68 stable HD patients (mean age =  $61.75 \pm 16.56$  years, 43 male/25 female) regularly received dialysis treatment in a state-run general tertiary hospital in East of China. The demographics and clinical correlates were collected. Self-reported sleep quality [using the Pittsburg Sleep Quality Index (PSQI)], anxiety [using

the Social Anxiety Scale (SAS)] and quality of life [using the 36-item Short Form (SF-36)] were recorded for all patients.

**Results:** The prevalence of poor sleepers was 69.1% (47/68), and anxiety was 14.9% (10/67). Poor sleepers had a significantly lower Physical Component Scale (PCS) score, Mental Component Scale (MCS) score and total SF-36 score than good sleepers. The PSQI score correlated negatively with PCS score and MCS score and it correlated positively with age. In multivariate analysis, independent variables of total SF-36 score were dialysis vintage, SAS score, and PSQI score.

**Conclusion:** Poor sleep quality is both common and severe issue and both sleep quality and anxiety are associated with lower HRQoL in stable hemodialysis patients in East of China.

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## 0279

### Pharmacological Inhibition of EGFR Attenuates Peritoneal Fibrosis in Rats

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**Objective:** Long-term PD leads to peritoneal damage and subsequently to peritoneal fibrosis that is characterized by fibroblast activation, collagen fibril accumulation, inflammation, and angiogenesis, but there is still no available treatment for peritoneal fibrosis thus far. In the current study, we explored the therapeutic effect of gefitinib, a specific inhibitor of epidermal growth factor receptor (EGFR), on the development and progression of peritoneal fibrosis.

**Methods:** Peritoneal fibrosis in rats was generated by daily intraperitoneal injections of chlorhexidine gluconate or high-glucose dialysis fluid. Gefitinib was administered via I.P at 100 mg/kg. At different time points, the parietal peritoneum was harvested for further analysis.

**Results:** Intraperitoneal injection of chlorhexidine gluconate or high-glucose dialysis fluid induced peritoneal fibrosis as indicated by thickening of the submesothelial area with an accumulation of collagen fibrils and activation of myofibroblasts. This was accompanied by time-dependent EGFR phosphorylation. Administration of gefitinib, a specific EGFR inhibitor, immediately after injury prevented the onset of peritoneal fibrosis, and delayed treatment until a certain degree of peritoneal fibrosis has occurred halted the progression of peritoneal fibrosis. Gefitinib treatment abrogated increased phosphorylation of EGFR, Smad3, STAT3 and nuclear factor (NF)- $\kappa$ B during peritoneal fibrosis. Gefitinib also inhibited overproduction of transforming growth factor- $\beta$ 1 and multiple proinflammatory cytokines as well as infiltration of macrophages to the injured peritoneum. Moreover, gefitinib significantly reduced peritoneal increase of CD31 (+) blood vessels and vascular endothelial growth factor (+) cells after injury.

**Conclusion:** These results demonstrate that EGFR contributes to peritoneal fibrosis, inflammation and angiogenesis and suggest that EGFR inhibitors may have therapeutic potential in peritoneal fibrosis.

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## 0283

### Role of Macrophages in the Process of Epithelial-Mesenchymal Transition of Human Peritoneal Mesothelial Cells

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**Objective:** The aim of this study is to investigate the effect of different macrophage subtypes (M1, M2a, and M2c) in the process of epithelial-mesenchymal transition of peritoneal mesothelial cells (PMCs).

**Methods:** For macrophage differentiation, THP-1 cells are treated with 25 nM TPA and IFN- $\gamma$  and LPS (for M1) or IL-4 (for M2a) or IL-10 (for M2c). Real-time PCR is performed to detect the expression level. We set up